REMARKS

Please cancel Claim 15 without prejudice. Claims 1-14 and 16-35 are pending. Claims 1, 11, 13-14, 16-26, 29 and 31-32 are amended herein. No new matter is added as a result of the claim amendments.

102 Rejections

The instant Office Action states that Claims 1-14 and 16-35 are rejected under 35 U.S.C. § 102(b) as being anticipated by Bindra, *electronic design* article dated November 6, 2000, "Programmable SoC Delivers an New Level of System Flexibility" (hereinafter, "Bindra"). The instant Office Action also cites "PSoC Designer: Integrated Development Environment, Getting Started 25-Minute Tutorial" Revision 1.0 dated July 3, 2001 (hereinafter, "Tutor"); "PSoC Technology Completely Changes 8-Bit MCU System Design" dated February 19, 2001 (hereinafter, "Tech"); "Cypress Customer Forums" dated February 21, 2001 (hereinafter, "Forum"); and "PSoC Designer: Integrated Development Environment User Guide" Revision 1.18 dated September 8, 2003 (hereinafter, "IDE").

Applicant recognizes that the Tutor, Tech, Forum and IDE references do not qualify as prior art under 35 U.S.C. § 102(b). In particular, Applicant respectfully notes that the IDE reference is dated almost two years after the filing date of the instant application and does not qualify as prior art under any part of 35 U.S.C. § 102. Accordingly, as the Examiner is no doubt aware, the IDE reference cannot be applied to anticipate a claim element not found in Bindra, Tutor, Tech or Forum.

The Examiner is respectfully directed to the background section of the instant application, which describes that a problem with the conventional art is that

users manually prepare microcontroller source code. For example, the user manually determines configuration registers, manually develops code to program those registers, manually writes code to operate a circuit, and the like.

The Examiner is respectfully directed to pages 15 and 16 of the Tutor reference, for example. There, a user is directed to type in (e.g., manually enter) source code. Therefore, Applicant respectfully submits that the qualified references cited in the Office Action share the problems of the conventional art described in the background section of the instant application. In contrast to those references, embodiments of the present claimed invention pertain to methods and systems for automatically generating source code (e.g., assembly code). Embodiments in accordance with the present invention thus address the problems of the conventional art by introducing features not shown or suggested (inherently or explicitly) by the qualified references cited in the Office Action.

Accordingly, Applicant respectfully submits that the qualified references cited in the Office Action do not show or suggest "automatically constructing source code," in particular source code "comprising configuration information for a programmable block of said microcontroller corresponding to said virtual block" and "wherein said configuration information is used to cause said programmable block to implement said function" as recited in independent Claim 1. Claims 2-12 are dependent on Claim 1 and recite additional limitations.

Applicant also respectfully submits that the qualified references cited in the Office Action do not show or suggest "automatically constructing assembly code," in particular assembly code "comprising configuration information for said

programmable block to implement said circuit design" and "wherein said assembly code is constructed from template assembly code by substituting information specific to said user module and information specific to said circuit design for generic information in said template assembly code" as recited in independent Claim 13. Claims 14 and 16 are dependent on Claim 13 and recite additional limitations.

In addition, Applicant respectfully submits that the qualified references cited in the Office Action do not show or suggest "automatically constructing assembly code," in particular assembly code "with personalization information specifying said programmable block as performing said function" and "wherein said assembly code is constructed from template assembly code by substituting information specific to said user module and information specific to said function for generic information in said template assembly code" as recited in independent Claim 17. Claims 18-20 are dependent on Claim 17 and recite additional limitations.

Also, Applicant respectfully submits that the qualified references cited in the Office Action do not show or suggest "constructing assembly code for operating said control parameter within said programmable block, wherein said assembly code is constructed from template assembly code by substituting information specific to said user module, information specific to said function and information specific to said control parameter for generic information in said template assembly code" as recited in independent Claim 21. Claims 22-24 are dependent on Claim 21 and recite additional limitations.

Furthermore, Applicant respectfully submits that the qualified references cited in the Office Action do not show or suggest "constructing an assembly code routine using said control parameter, wherein said assembly code routine is constructed from template assembly code by substituting information specific to said user module, information specific to said function and information specific to said control parameter for generic information in said template assembly code" as recited in independent Claim 25.

Moreover, Applicant respectfully submits that the qualified references cited in the Office Action do not show or suggest "automatically constructing assembly code," in particular assembly code "holding configuration information for a programmable block corresponding to said virtual block to perform said function" as recited in independent Claim 26. Claims 27-30 are dependent on Claim 26 and recite additional limitations.

Finally, Applicant respectfully submits that the qualified references cited in the Office Action do not show or suggest "using said first and second data structures to automatically generate first source code for realizing said user module within said hardware resource" as recited in independent Claim 31. Claims 32-35 are dependent on Claim 31 and recite additional limitations.

In summary, Applicants respectfully submit that the qualified references cited in the Office Action do not show or suggest the present claimed invention as recited in independent Claims 1, 13, 17, 21, 25, 26 and 31. Accordingly, Applicants respectfully submit that independent Claims 1, 13, 17, 21, 25, 26 and 31 traverse the basis for rejection under 35 U.S.C. § 102(b) and are in condition for allowance.

As such, Applicants also respectfully submit that Claims 2-12, 14, 16, 18-20, 22-24, 27-30 and 32-35 traverse the basis for rejection under 35 U.S.C. § 102(b), as these claims are dependent on allowable base claims and recite additional limitations.

Conclusions

In light of the above remarks, reconsideration of the rejected claims is respectfully requested. Based on the arguments presented above, it is respectfully asserted that Claims 1-14 and 16-35 overcome the rejections of record and, therefore, allowance of these claims is solicited.

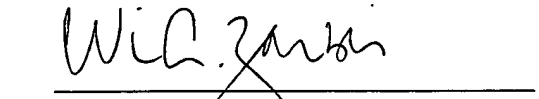
The references cited but not relied upon have been reviewed. These references were not found to show or suggest the present claimed invention: U.S. Patent Nos. 5,128,871 and 6,460,172, and U.S. Patent Application Publication No. 2002/0108006.

The Examiner is invited to contact Applicant's undersigned representative if the Examiner believes such action would expedite resolution of the present Application.

Respectfully submitted,

WAGNER, MURABITO & HAO LLP

Date: 3/9/05



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AMENDMENTS TO THE FIGURES

Attached is a replacement Figure 8A incorporating changes identified by the Applicant. Specifically, the spelling of the word "parameterization" is corrected in blocks 810 and 825 of Figure 8A.

Attachments: Replacement Figure 8A